植 物 分 类 学 报　41 (3)：267 – 270 (2003)
Acta Phytotaxonomica Sinica

独龙虾脊兰(兰科)的合格发表

李 恒　李 嵘　刀志灵
(中国科学院昆明植物研究所　昆明 650204)

Validation of *Calanthe dulongensis* (Orchidaceae)

LI Heng　LI Rong　DAO Zhi-Ling
(*Kunming Institute of Botany*, *the Chinese Academy of Sciences*, Kunming 650204, China)

Abstract　By giving a full Latin description and designating the holotype, *Calanthe dulongensis* H. Li, R. Li & Z. L. Dao, a species of Orchidaceae from Dulongjiang Valley, Gongshan County, Yunnan Province, is validated. The species is distinguished by its mid-lobe with three shortly stipitate and golden-yellow, globose appendages. It is similar to *C. henryi* Rolfe and *C. plantaginea* Lindl. in habit but differs by its conspicuous rhizome, obovate-lanceolate petals and glabrous dorsal sepal. It is also perhaps related to *C. triplicata* (Willem.) Ames but differs by its apically emarginate and apiculate mid-lobe, conspicuous rhizome and pseudostem, obscure petioles, and yellow spur of the lip and glabrous sepals.

Key words　*Calanthe dulongensis* H. Li, R. Li & Z. L. Dao, Orchidaceae, new species, Yunnan, China.

摘要　通过补充拉丁文描述和指定模式,本文合格发表了独龙虾脊兰 *Calanthe dulongensis* H. Li, R. Li & Z. L. Dao。该种因其唇瓣中裂片上有 3 个具短柄的金黄色球状附属物而有别于本属的其他类群。本种在体态上与疏花虾脊兰 *C. henryi* Rolfe 和车前虾脊兰 *C. plantaginea* Lindl. 相近,不同之处在于本种的根状茎明显,花瓣倒卵状披针形,中萼片无毛;本种在体态上也与三褶虾脊兰 *C. triplicata* (Willem.) Ames 相近,区别在于本种的唇瓣中裂片先端内凹并具突尖,根状茎明显,假茎明显,叶柄不明显,唇瓣的距黄色,中萼片无毛,侧萼片无毛。

关键词　独龙虾脊兰;兰科;新种;云南;中国

1990 – 1991 年独龙江植物越冬考察队曾 3 次采集到虾脊兰属 *Calanthe* R. Br. 的一个新种,但一直未正式发表,仅以黄花虾脊兰 *Calanthe dulongensis* H. Li 一名在《独龙江地区植物》及《高黎贡山植物》两书中作了记载。吉占和教授生前在中国科学院昆明植物研究所标本馆查阅兰科植物标本时,多次对本种标本进行过详细的研究,并确认此种成立,随后他于 2000 年 3 月 14 日致函本文作者建议尽快发表此新种,以便在编写《Flora of China》时增补。现将该新种(中文名重新拟为独龙虾脊兰)进行描述发表,籍以纪念吉占和教授对中国兰科植物研究的卓越贡献和他对本文作者的指导和帮助。

独龙虾脊兰　新种　图 1

Calanthe dulongensis H. Li, R. Li & Z. L. Dao, sp. nov., Fig. 1

Calanthe dulongensis H. Li in Flora of Dulongjiang Region: 340, fig. 15: 5. 1993; et in Flora of Gaoligong Mountains: 1086. 2000, without giving Latin description and designating

2002-09-26 收稿,2003-03-17 收修改稿。
基金项目:国家自然科学基金和美国国家科学基金(Supported by the National Natural Science Foundation of China (Grant No.: 39670086) and National Science Foundation of USA (Award No.: DEB-0103795))。

holotype, nom. inval.

Species nova *C. henryi* Rolfe et *C. plantagineae* Lindl. affinis, sed lobo labelli intermedio superne 3 appendicibus breve stipitatis globosis aureis instructo, rhizomate conspicuo, petalis obovato-lanceolatis, sepalo intermedio utrinque glabro differt; a *C. triplicata* (Willem.) Ames lobo labelli intermedio apice leviter emarginato cum apiculo interjecto, rhizomate et pseudocaule conspicuo, petiolo obscuro, calcari labelli flavo, sepalo intermedio utrinque glabro, sepalis lateralibus utrinque glabris differt.

Herba terrestris, circ. 50 cm alta, radicibus densis elongatis dense griseo-brunneo-pubescentibus. Rhizoma circ. 6.5 cm longum. Pseudobulbus viridi-niger, subovoideus, 1.5 cm longus, circ. 2 cm in diam., veternus extus reliquiis fibrosis petiolorum obsitus. Cataphylla 4, viridula, ovata usque ovato-lanceolata, 3 – 9.5 cm longa, apice subulata. Pseudocaulis 8 – 12 cm longus. Folia 3, viridia, elliptica usque subovato-elliptica, cum pseudocaulibus 30 – 40 cm longa, 4.5 – 7.5 cm lata, apice acuta vel acuminata, basi attenuata, margine integra, utrinque glabra; nervi primarii 6; petioli obscuri. Scapus 1, cum foliis novellis coaetanea, suberectus, ad 38 cm altus, folia novella multo superans, dense puberulus; pedunculus 22 cm longus, infra inflorescentiam vaginis 2 – 3 ornatus; racemus 16 cm longus, laxe 20 – 25-florus; bracteae albae, membranaceae, lanceolatae, persistentes, 9 – 11 mm longae, apice acuminatae, dorso pubescentes vel subglabrae; pedicelli cum ovariis 1.8 – 2.5 cm longi, dense pubescentes; sepala et petala flavo-viridia, sepalo intermedio oblongo-elliptico, 1.8 cm longo, 6 mm lato, apice acuto, 5-nervato, utrinque glabro, sepalis lateralibus ellipticis, 1.5 cm longis, 4 mm latis, apice mucronatis, 5-nervatis, utrinque glabris; petala obovato-lanceolata, 1.5 cm longa, 5 mm lata, apice obtusa cum apiculo interjecto, 3-nervata; labellum basi flavum, columnae adnatum, antice album, tripartitum, lobis lateralibus anguste oblongis, circ. 6 mm longis, 2 mm latis, apice oblique cuneatis, lobo intermedio reniformi, 5 mm longo, 7.5 mm lato, apice leviter retuso cum apiculo interjecto, superne 3 appendicibus breve stipitatis globosis aureis instructo, longe unguiculato, ungue 4 mm longo, 1.4 mm lato; calcar labelli flavum, cylindraceum, patens, 5.5 mm longum, apice obtusum, extus sparse pubescens; columna flava, circ. 8 mm longa, superne ampliata, utrinque glabra; rostellum flavidum; operculum flavidum, antice in rostellum angustatum. Fl. Apr.

China. Yunnan (云南): Gongshan (**贡山**), Dulongjiang Valley (**独龙江流域**), Dizhengdang (**迪正当**), alt. 1900 m, under forest, 1991-04-15, Dulongjiang Valley Exped. (**独龙江考察队**) 5896 (holotype, here designated, KUN); Gongshan (**贡山**), Dulongjiang Valley (**独龙江流域**), Mugang (**木岗**), alt. 2200 m, under forest, 1991-04-17, Dulongjiang Valley Exped. (**独龙江考察队**) 6144 (KUN); Gongshan (**贡山**), Dulongjiang Valley (**独龙江流域**), Xianghong (**向红**), alt. 2300 m, under forest, 1991-04-22, Dulongjiang Valley Exped. (**独龙江考察队**) 6501 (KUN).

多年生陆生草本,植株高约 50 cm。**根密集,伸长,密被灰褐色柔毛;根状茎长约** 6.5 cm;**假鳞茎绿黑色,近卵形,长** 1.5 cm,**直径约** 2 cm,**老假鳞茎外被纤维状叶柄残余;鳞叶** 4 **枚,绿色,卵形至卵状披针形,长** 3 – 9.5 cm,**先端锐尖,假茎长** 8 – 12 cm。**叶** 3 **枚,绿色,椭圆形至倒卵状椭圆形,长** 30 – 40 cm(**含假茎部分**),**宽** 4.5 – 7.5 cm,**先端急尖或渐尖,基部**

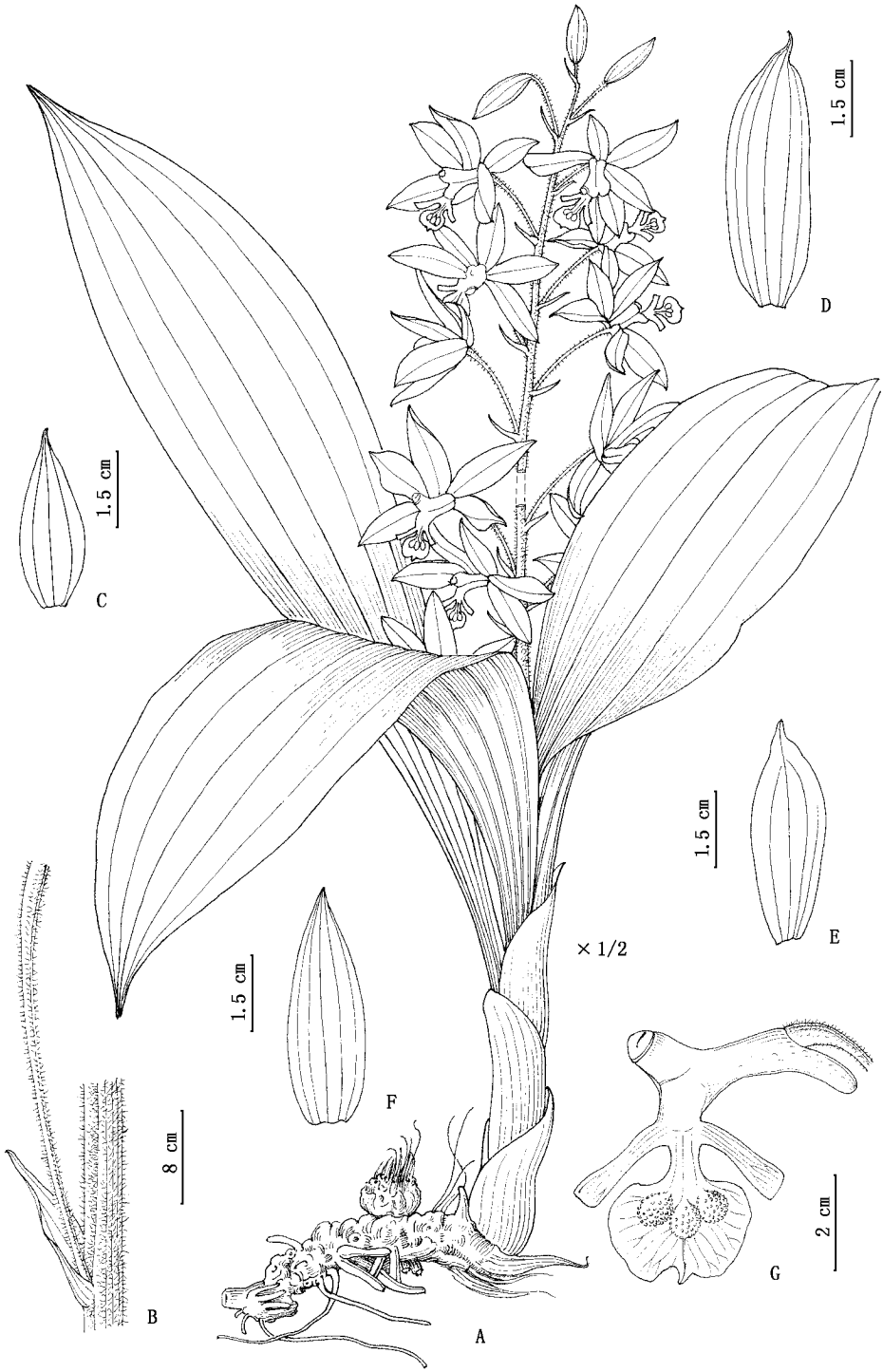

图 1　独龙虾脊兰　A，植株；B，花序一部分示花苞片及毛被；C，花苞片；D，中萼片；E，花瓣；F，侧萼片；G，带有蕊柱、子房和花梗的唇瓣。(根据独龙江考察队 5896 号标本绘)

Fig. 1.　*Calanthe dulongensis* H. Li, R. Li & Z. L. Dao.　A, habit; B, part of inflorescence, showing the floral bract and pubescence; C, floral bract; D, dorsal sepal; E, petal; F, lateral sepal; G, lip with column, ovary and pedicel. Drawn by WU Xi-Lin from the type gathering, Dulongjiang Valley Exped. 5896 (KUN).

渐狭,全缘,两面无毛,基出主脉 3 对;叶柄不明显。花葶 1,与新叶同出,近直立,长达 38 cm,远长于新叶,密被短柔毛;花序柄长 22 cm,疏生 2 – 3 枚不育苞片;总状花序长 16 cm,疏生 20 – 25 朵花;花苞片白色,膜质,宿存,披针形,长 9 – 11 mm,先端渐尖,背面被短柔毛或近无毛;花梗连同子房长 1.8 – 2.5 cm,密被短柔毛;萼片和花瓣黄绿色,中萼片长圆状椭圆形,长 1.8 cm,宽 6 mm,先端急尖,具 5 条脉,无毛;侧萼片椭圆形,长 1.5 cm,宽 4 mm,先端具短尖,具 5 条脉,无毛;花瓣倒卵状披针形,长 1.5 cm,宽 5 mm,先端钝并稍具短尖,具 3 条脉;唇瓣基部黄色,贴生于蕊柱上,前部白色,3 深裂;侧裂片狭长圆形,长约 6 mm,宽约 2 mm,先端斜楔形;中裂片肾形,长 5 mm,宽 7.5 mm,先端内凹并具突尖,上有 3 个具短柄的金黄色球状附属物,具长爪,爪长 4 mm,宽 1.4 mm;距黄色,圆筒形,伸直,长 5.5 mm,末端钝,外面疏被短柔毛;蕊柱黄色,长约 8 mm,上端扩大,无毛;蕊喙淡黄色;药帽淡黄色,在前端收狭呈喙状。花期 4 月。

本种因叶柄与叶鞘相连接处无关节、花苞片宿存、花序具短柔毛和唇瓣基部贴生于蕊柱上等特征而隶属于虾脊兰亚属 subgen. *Calanthe* 虾脊兰组 sect. *Calanthe*。本种在体态上与疏花虾脊兰 *C. henryi* Rolfe 和车前虾脊兰 *C. plantaginea* Lindl. 相近,不同之处在于本种的唇瓣中裂片上有 3 个具短柄的金黄色球状附属物,根状茎明显,花瓣倒卵状披针形,中萼片无毛;本种在体态上也与三褶虾脊兰 *C. triplicata* (Willem.) Ames 相似,区别在于本种的唇瓣中裂片先端内凹并具突尖,根状茎明显,假茎明显,叶柄不明显,距黄色,中萼片无毛,侧萼片无毛。

本种目前仅在贡山县独龙江流域的山坡针阔叶混交林下有所发现,该地区因其特殊的地质地貌和多样的生态环境,为植物的生长发育创造了优越的条件,在长期的物种形成与演化过程中,该流域造就了丰富的地方特有种。

致谢 吉占和教授生前对本种的成立予以确认,吴锡麟先生帮助绘图,特此表示感谢!